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# An Approach on Trip Recommendation with Multiple User Point-Of-Interests

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**ABSTRACT :** Mobile techniques in recent past years, many and more of Location-Based Services (LBSs) have been developed and one reputed application of LBSs is trip advice. At present, large data increasingly advantage both research and technical area. a individualize travel sequence direction from both travelogues and community collection of photos and the similar metadata associated with these photos. Including representative mark location , the different part assigned just like of cost, visiting time and visiting season of each topic, is mined to bridge the vocabulary distance between user travel choice and travel direction. POI sequence, first popular routes are ranked give approval to the common between user and route package and other is finding the accuracy of the location

**KEYWORDS**: Combined use of serveral media retrivel pic and info , location tracking ,Google map API , cost detection , time detection and place detection trough the image.

## I. INTRODUCTION

A travel sequence advice from both searching and community collection photos. The similar type of metadata associated with these photos. Topical package space carry representative mark location, the distributions of cost, visiting time and visiting season of each place. To individual Point of interest sequence, famous are ranked according to the common between user package and route package. The first top routes are next research by social similar users travel records. The travel topical interest , other character including consumption capacity , preferred visiting season and preferred visiting time may also be beneficial to give personalized travel recommendation. It is to valuable advice a sequential travel route (i.e. a sequence of POIs) rather than personalize POI. It is far more complicated and time saving for users to plan travel sequence than own POIs. the creation of conversation technology, many and more digital services, such as cameras and smart-I phones, proposal of global positioning system joining together. Large amount quantities of images or picture taken by users are giving other or shearing on social media websites such as Face book and Flicker daily. The GPS data of social images has been mostly used in many applications just like as content browsing, image annotation, image search, and localization. Qi an *et al.* have display that using the GPS data of users' uploaded image is useful for become batter users vocabulary mark on location performances. The community-collection photos with metadata (e.g. tags, date taken, latitude etc.) on social media record users everyday life and travel knowledge. These collected data are not only helpful for trustworthy POIs (points of interest) mining , travel routes mining, but give an offer to recommend own travel POIs and routes based on user's interest.

## II. RELATED WORK

The earlier internet system search the only the text searching operation i.e. now a day if anyone want to going tour or new places it only search text text on Google n search the place but I will give the new implementation that is image through search the place . In that new thing you get the idea How it looks and map the location.

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Zhiwen Yu, Huang Xu, Zhe Yang, and Bin Guo,et al. [1] In this paper ,they advise an individual travel sequence the system certainly mined user's and routes travel topical first choice giving own interest, cost, time and season and we recommended not only POIs (point of interest) but also travel sequence , turn over in one's mind both the famous and user's travel choice at the similar time. Helps for users find interesting locations and also generates travel packages existing of dissimilar types of locations and visiting sequences. The location famous and user choice for POIs are modelled by make to use spatiotemporal advantage in use check-in records. their are some method use Topical Package Model :these learning method to automatically mine user travel interest from two publically media, community-collection of photos and searching anything ,searching Mining any place ,Cost, Time and Season getting information and Mining , path over which someone topical package model mining

Jing Li , Xueming Qian ,et al. [2] In this paper , they giving the idea of a system of hierarchical structure to estimate the GPS location for an image . GPS estimation doing and c computational costs are profitable from the hierarchal structure and inverted file structure. All GPS searching the images of each GPS location helps further save computational costs and improve the GPS estimation accuracy . some methods are use A hierarchical algorithm use for estimating the GPS location of an image, Global Feature Clustering use for GPS location in that GPS Location Based Cluster data , Algorithm the GPS Location Refined Cluster.

Shih-Hsin Fang, Eric Hsueh-Chan Lu and Vincent S. Tseng ,et al. [3] In this paper ,only efficiently advice the own trips but also Effectively combining packages with several constraints and giving proposed a Score Inference model to infer the scores of attractions and packages with both user-based preference and temporal-based properties Considered . The design more and many efficient Optimal trip advice approaches and the optimization strategies. methods use PATR, A Score Inference Model is giving the idea to infer the scores on Attractions and packages by taking user-based preference and temporal-based feature into account.

Shuhui Jiang, Xueming Qian,et al. [4] In this paper, proposed a personalized travel sequence recommendation system by learning topical package model from big multi-source social media: travelogues and community contributed photos. The advantages of our work are the system automatically mined user's and routes' travel topical preferences including the topical interest, cost, time and season, we recommended not only POIs but also travel sequence, considering both the popularity and user's travel preferences at the same time. We mined and ranked famous routes based on the similarity between user package and route package, And then optimized the top ranked famous routes according to social similar users' travel records. However, there are still some limitations of the current system.

QIAO Xiuquanl , SU Jianchong , et al. [5] Social network services promote the emergence of some novel personalized services. In particular, location-based mobile social network (LMSN) services are becoming increasingly popular to meet the emerging SoLoMo (short for Social+Local+Mobile) market. Because LMSN natively integrates user's offline activities in the physical world with the online information in the virtual community, it provides a new chance for users make friends instantly at a specific time and a specific location. However, so far, neither the existing friend recommendations in the OSN nor the novel recommendation approaches of LMSN have well addressed this issue.

Karol Waga , Andrei Tabarcea , Pasi Franti , et al. [6] In this paper , they study how to Mine more knowledge from user generated collections . They Advice three types of item services, photos and routes. The aim of the developing is to recommend points of interests to visit in user's surrounding. Database of advice items has free form and is generated by the users of MOPSI without any data cleansing. Some method use are .Location-Aware Recommender System uses location-aware ratings for advice , .MOPSI system.

Shuhui Jiang , Xueming Qian, [7] In this paper, ATCF user point of interest are ordered according to similar users, who share same travel topic choice, alternative of raw GPS data as is that case of most previous works. Unlike location-based collaborative filtering, even not in GPS records, same users can still be mined correctly according to the same of users choice. User's topic choice can be mined from the textual explanation attached with his/her photos via author topic model (ATM). Through ATM, travel and a user's topic choice can be elicited simultaneously. Method use ATCF method is offer to facilitate inclusive points of interest advice for friendly users. Topic model method has been brought in into own travel advice. TM is to the content-based method in product advice systems .

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## III. PROPOSED ALGORITHM

The working of system can be explained as follows
1. The system automatically mined user's and routes' travel topical preferences including the topical interest, cost, time and season.
2. I mine and Ranke famous routes based on the similarity between user package and route package. And then optimized the top ranked famous routes according to social similar users' travel records
3. I plan to enlarge the dataset, and thus I could do the recommendation for some non-famous and famous cities.
4.Finding the accuracy of location right or wrong.

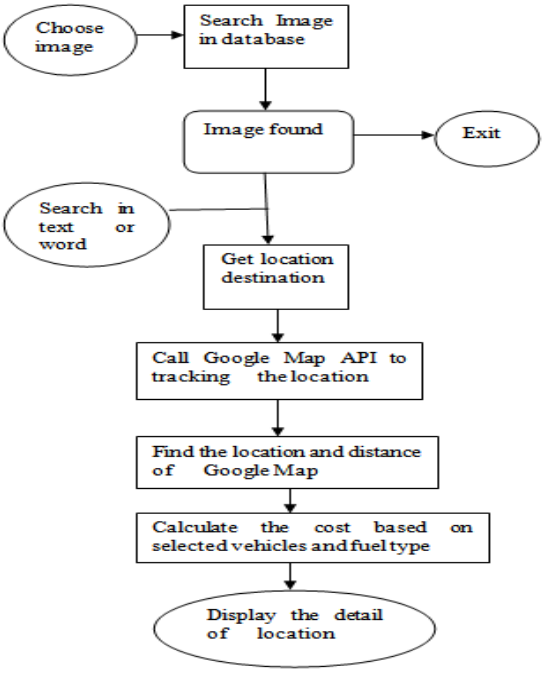


Fig 1. Architecture of system

The works include to verify continuously the presence of the user which are logger in by giving proper username and password. the personalized travel sequence recommendation system by learning topical package model from big multi-source social media: travelogues and community contributed photos. travel sequence and travel package recommendation. We also point out the differences between our work and existing works. GPS trajectory , check-in data , geo-tags and blogs (travelogues) are four main social media used in recommendation. User-generated travelogues provide rich information. Topic package space is a kind of space in which the four travel distributions of each topic are described by (1) representative tags mined from travelogues which describe POIs within the same topic (2) the average consumer expenditure of the POIs within this topic, which are also mined from travelogues (3) distribution of the visiting season of the 12 months mined by the "date taken" attached with the community-contributed photos (4) distribution of visiting time during the day from travelogues.

**System Recognition of location tracking help of Image:**

The system consist of three modules, first module is tracing the location ,second one is the finding cost and distance as per the different vehicles and 3rd module is finding the accuracy.

**[1] Module Searching algorithm :**

Perceptual hash algorithms is use to search the images to the database. this algorithm describe comparable to hash algorithm , Features of this algorithm is the image are used to generate a distinct (but not unique) fingerprint, and these fingerprints are comparable. this algorithm working as same MD5 and SHA1 but in

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that algorithm one advance thing that is cryptographic hashes, the hash values are random. The data used to generate the hash acts like a random seed, so the same data will generate the same result, but different data will create different results.

A more robust algorithm is used by pHash. The pHash approach extends the average approach to the extreme, using a discrete cosine transform to reduce the frequencies.

1. Reduce size. Like Average Hash, pHash starts with a small image. However, the image is larger than 8x8; 32x32 is a good size. This is really done to simplify the DCT computation and not because it is needed to reduce the high frequencies.
   
2. Reduce color. The image is reduced to a grayscale just to further simplify the number of computations.
3. Compute the DCT. The DCT separates the image into a collection of frequencies and scalars. While JPEG uses an 8x8 DCT, this algorithm uses a 32x32 DCT.
4. Reduce the DCT. This is the magic step. While the DCT is 32x32, just keep the top-left 8x8. Those represent the lowest frequencies in the picture.
5. Compute the average value. Like the Average Hash, compute the mean DCT value (using only the 8x8 DCT low-frequency values and excluding the first term since the DC coefficient can be significantly different from the other values and will throw off the average). Thanks to David Starkweather for the added information about pHash. He wrote: "the dct hash is based on the low 2D DCT coefficients starting at the second from lowest, leaving out the first DC term. This excludes completely flat image information (i.e. solid colors) from being included in the hash description."
6. Further reduce the DCT. This is the magic step. Set the 64 hash bits to 0 or 1 depending on whether each of the 64 DCT values is above or below the average value. The result doesn't tell us the actual low frequencies; it just tells us the very-rough relative scale of the frequencies to the mean. The result will not vary as long as the overall structure of the image remains the same; this can survive gamma and color histogram adjustments without a problem.
7. Construct the hash. Set the 64 bits into a 64-bit integer . The order does not matter , just as long as you are consistent . To see what this fingerprint looks like, simply set the values (this uses +255 and -255 based on whether the bits are 1 or 0) and convert from the 32x32 DCT (with zeros for the high frequencies) back into the 32x32 image:
    = 8a0303769b3ec8cd
   At first glance, this might look like some random blobs... but look closer. There is a dark ring around her head and the dark horizontal line in the background (right side of the picture) appears as a dark spot.

**Location tracking**:

In the first module location tracking , the location tracing use for both location that is current user and another place want to find in that location use the Google Map API . the Google map API which is use for tracking the both location and finding the place with the help of image. The application will get distance between two locations by use the goggle map API. We will incorporate Google map in our application so the user can correct his location If there is any mismatch . Once user conform there location , system will fetching distance and calculating the cost based on vehicles which are define in next module. Google map API is a free service, and latest does not contain ads, but Google states in their terms of use that they reserve the right to display ads in the future. The Google Maps API is free for commercial use, provided that the site on which it is being used is publicly accessible and does not charge for access, and is not generating more than 25,000 map accesses a day. Sites that do not meet these requirements can purchase the Google Maps API for Business.

**[2]Module finding the cost and distance as per the different vehicles:**

In the 2nd Module cost and distance finding , the cost and distance find with the help of Mathematical Tools or Techniques. In that mathematical tools use to find the distances between current location and finding location on different type of vehicles . the distance always be calculated vehicles. The cost depends on fuel type

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and mileage . the fuel type and mileage are user input and then calculation fully depend on that user input.

The accuracy of calculation the distance will be same as Google map. to get the accurate cost we are providing the vehicles fuel and mileage selection to the User. so the accuracy of costing is depend on input user the also finding the mathematical logic or mathematical formula

## IV. CONCLUSION AND FUTURE WORK

In this paper , I proposed of the travel sequence idea through the image generally user can search the location or the place in the text format i will new research that is image wise location track. The collection of images search with the help of Phash algorithm this algorithm basically perform the comparing of two images and get result. The searching the location many way but this paper searching the location help of image and finding the accuracy of the location. The advantages of this paper are the system automatically mined user's and routes' travel topical preferences including the topical interest and recommended not only point of interest (POIs).the location track with the help of Google map plug-in and calculating the distance and cost of that place which you want.

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